



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/566,300	01/25/2006	Ryo Suzuki	OGOSH42USA	2014
270. 7590 03/20/2009 HOWSON & HOWSON LLP 501 OFFICE CENTER DRIVE SUITE 210 FORT WASHINGTON, PA 19034				
EXAMINER				
LI, JUN				
ART UNIT		PAPER NUMBER		
1793				
MAIL DATE		DELIVERY MODE		
03/20/2009		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary**Application No.**

10/566,300

Applicant(s)

SUZUKI, RYO

Examiner

JUN LI

Art Unit

1793

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 March 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION**Status of Application**

The objection of is withdrawn due to the applicant's amendments

Claim 1 is amended wherein the addition have resulted in a change of scope the claims.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

1. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takeda (JP09-260139) in view of Watanabe (JP09-316630) and Kodera (JP06-330297).

Takeda teaches a perovskite composition $\text{La}_{1-x}\text{A}_x\text{MnO}_z$ wherein A can be Ca, Ba or Sr and $0.05 \leq x \leq 0.5$, $2.7 \leq z \leq 3$ (Clm 1-3), which read onto the recited composition in the instant claim. Takeda further teaches a sputtering target such as a thin film can be formed by this perovskite composition via a sputtering technique (abstract, [00014]). It is to be noted that the range of x and z overlaps with the range of x and α in the instant claim, thus render a prima facie obviousness (See § MPEP 2144.05 [R-5] I).

Takeda fails to specifically teach this target has (1) a relative density not less than 95%, an average crystal grain size is not greater than 100 μm , and (2) a resistivity not greater than 10 Ωm .

With respect to (1), Watanabe teaches a sputtering target can be made from perovskite oxide with a relative density of 95-99%, and purity regulated $>4\text{N}$

Art Unit: 1793

and particle size less than 20 μm to prevent target cracking (abstract, , claim 1,[0006]) via controlling pressure and sintering conditions. Wantanabe further discloses the average particle diameter is decreased in order to improve the transverse resilience of said sintered compact ([0008]) and the sintered product is made to have a purity more than 4N or higher in order to prevent the growth of the grains in said sintered compact ([0011]).

It would have been obvious to one of ordinary skill in the art at the time of invention filed to adopt the techniques of Wantanabe to improve the sputtering target made from composition of $\text{La}_{1-x}\text{A}_x\text{MnO}_3$ as shown by Takeda. One of ordinary skill in the art would have been motivated to do so because controlling the sputtering target properties such as density, purity, particle sizes can minimizing the cracking formation during a high power and high film formation sputtering process as indicated by Wantanabe ([0003],[0006], abstract, Clm1-3).

With respect to (2), Kodera teaches sputtering target of a perovskite oxide can have a resistivity $\leq 10 \Omega\text{m}$ for a dielectric formation (Clm 1, abstract). Kodera further teaches the electrical resistivity can be controlled by the pervoskite oxide compound's oxygen efficiency during sintering process thus provide a stabilized dielectric membrane via sputtering ([0020],[0022],[0023]).

It would have been obvious to one of ordinary skill in the art at the time of invention filed to adopt resistivity of Kodera to improve the sputtering target made from composition of $\text{La}_{1-x}\text{A}_x\text{MnO}_3$ as shown by Takeda in view of Wantanabe. One of ordinary skill in the art would have been motivated to do so because controlling the resistivity of sputtering target can help forming a stabilized

Art Unit: 1793

dielectric membrane during sputtering process as shown by Kodera (abstract, Cim1, [0020],[0022],[0023]).

Response to Arguments

2. Applicant's arguments filed on 03/03/2009 with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

In response to Applicant's argument about the pervoskite composition in JP'630, examiner find it not persuasive because the general composition with recited formula in the instant claim has already been disclosed in the primary reference such as Bates in previous action and JP'139. It is obvious to adopt similar techniques for controlling pervoskite oxide compound as disclosed in JP'630 to improve the properties for the formed sputtering target during sputtering process. Furthermore, applicants have not provide any evidence to such combination are not possible for one ordinary skill in the art.

Conclusion

3. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory

Art Unit: 1793

action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JUN LI whose telephone number is (571)270-5858. The examiner can normally be reached on Monday-Friday, 8:00am EST-5:00 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis Mayes can be reached on 571-272-1234. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1793

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JUN LI/
Examiner, Art Unit 1793

/J. L./
03/10/2009

/Melvin Curtis Mayes/
Supervisory Patent Examiner, Art Unit 1793